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ABSTRACT

This analysis of higher education financing examines the need for the provision of additional funds to higher educational institutions and the availability of adequate aid funds to parents and students. It is concluded that there is no single solution to the problems associated with higher education finance that is suitable for all colleges and students. A variety of educational financing techniques are needed which could be employed individually or in conjunction with other devices. It is important to insure that higher educational institutions become more efficient in using new funds. Differential tuition pricing is an effective device for generating more funds for an institution, but it would succeed only if other sources of funding were provided for the parent and student. Other sources of funding are long-term, low-interest loans made by the government directly to the student and the "E" Bond device. These schemes must be politically feasible, the amount of money available for the loan must be meaningful, and the terms for repayment must be reasonable. Existing federal support programs and some of the associated problems are discussed. (SW)

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Financing Higher Education in the 1980's and Beyond

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The issues facing higher education, today, are: 1) the provision of additional funds to institutions of higher education; and 2) the availability of aid funds to parents and students that are meaningful (level of funding is sufficiently high to cover costs of private higher education) and reasonable (the interest rates and repayment terms are such that the student and/or his parents will be able to repay the loan).

The problem is exacerbated if the child is fortunate enough to gain admission to a select school. After all, few among us need be unconcerned about price. Indeed, a cash outlay amounting to thousands of dollars for each year a child is in college demands long-range family financial planning. Current estimates of the cost of attending a private four year college are $5,100 per year, including tuition, fees, room, board, supplies, books, personal expenses and transportation (College Entrance Examination Board, 1978 See Suchar, Ivans and Jackson, 1976.

Many proposals have been forthcoming to ease the financial problems encountered by families and institutions of higher education (Bolton, 1968). However, because higher education services a heterogeneous clientele, through an equally diverse structure, no one plan has been able to secure consensus or meet the needs of this broad constituency.

The call, therefore, is to divise a strategy for financing higher education that will be both equitable and efficient (Hansen and Weisbrod, 1969. This policy, to be promulgated at the federal level, would require increased revenues for colleges and universities, an ability to pay on the part of students, parents, and government sources, and strict accountability for the efficiency of the educational plant and process on the part of institutions of higher education.

Initially, a high school diploma was considered an adequate vehicle for social and economic mobility. No longer is this the case. Increasingly, higher education, and even graduate education, is being mandated for entry into, and advancement on, professional career ladders. The issue appears to be, then, who pays, and who benefits from this higher education. Persuasive arguments can be advanced that there are substantial private and public benefits, and that therefore, each party should contribute to the support of higher education. Of course, the question to be resolved is, how much support should each party contribute? On the one hand, some argue that higher education is a right which should be available to all, at little or no cost, (Bowen, 1969) while others maintain that while access to higher education should be unencumbered, the student and the parent should be expected to support this investment (Clurman, 1969).

Traditionally, institutions of higher education have maintained that many of their problems would disappear if only they could achieve an adequate level of funding. "Adequate" could be described as that level of revenue which would be required to cover the expenses generated by the provision of all the services and programs to which the institution aspired. However, little effort is made to acquire and compare relative cost figures among colleges and universities for specific activities (Halstead, 1975 and Weinberg, 1977). Surely, administrators and faculty ought to face their responsibilities and try to keep income in line with costs. No organization can operate over an extended period of time if costs continue to exceed revenues.

The issue of aid for higher education has resolved, to some extent, around the question of whether that aid should go to the institution or to the individual student. Perhaps the base criterium upon which this issue can be decided is one of efficiency. Society may ask, for example, where can it get the highest return on its investment in higher education? Aid to institutions has involved grants, work study programs, tax credits, and scholarships (Wolk, 1971; Freeman, 1971; Zacharias, 1969).

A significant and sensitive area of direct government support to students has revolved around government loan schemes. These programs have helped a large number of students complete their studies.

However, the debt load placed upon the student at graduation, compounded by the repayment terms, has encouraged many students to opt for a declaration of bankruptcy. This multi-million dollar problem has become so pervasive, that the Department of Health, Education and Welfare's Office of Education is proposing new rules in an effort to reduce government loan losses (Times, 1978). The Office of Education states a default rate of 10 percent in 1975, and in the same year, the General Accounting Office estimated default at 24 percent. The discrepancy in the figures appears to result from the inclusion of delinquency figures in the total (See also, Farrell and Andersen, 1971).

According to a recent State of New Jersey survey (New Jersey, 1975) family contributions to the student's higher education amounts to approximately 54 percent of the educational expenses. How can the student finance this cost differential between educational expenses and ability to pay. Historically, this differential was met by competition for scho-

larship funds. However, the entire picture changed with the passage of the National Direct Student Loan Program in 1958. This initial effort was followed by the 1965 Higher Education Act which provided for the Guaranteed Student Loan Program. The difference between NDEA and GSLP is in the source of capital. NDEA gives federal capital appropriation to educational lenders, while GSLP funds come from the private sector and must compete with demands for mortgage monies.

In 1967, the Zacharias Panel proposal income contingent loans ICL's (first proposed by Milton Friedman in 1945) which would be secured by the pledge of a portion of future student earnings against the loan. ICL's were adapted for use by Yale and Duke Universities, but have not achieved general acceptance.

Another source of federal support is the Federal Grant Program. There are two kinds of grants: The Basic Educational Opportunity Grant and the Supplementary Educational Opportunity Grant. The BEOG provides for grants up to a maximum of $1800. Supplementary grants provide for payments to two types of students, those who don't qualify for the BEOG, and those whose basic grants are insufficient because of institutional costs to permit enrollment.

There is no doubt that these government programs have helped a large number of students attend college who would, ordinarily, have been unable to do so. However, education is a long-lived capital asset, and students are being asked to pay for it with intermediate term financing. Certainly, no prudent financial manager would suggest this as an appropriate financial mechanism to pay for a long-term capital asset. No

wonder, then, that students elect a declaration of bankrupcy as a viable way to resolve their higher educational financial problems. It must be noted, however, that recent changes in the bankrupcy law, as applied specifically to college loans, have tended to foreclose on this option. Students can, no longer, declare bankruptcy within five years of graduation from college in order to avoid repaying their educational loan.

If then, the traditional ways of financing higher education are not very effective, what solutions can be proposed to resolve the problems? As part of this paper, the author will offer for consideration, several different approaches to financing higher education. These ideas were chosen because they met the criteria for selection -- flexibility, ease of operation, efficiency in the production of funds, political feasibility -- and they provide a variety of options to institutions of higher education, parents, and students.

In an effort to generate more net fee income, colleges and universities may decide to employ price discrimination (differential tuition pricing). Higher education meets the economic criteria necessary for the adoption of price discrimination by taking the following forms:

1. Institutions could charge different rates for the same services to different classes of students. Quite often, lower and upper classmen take the same courses simultaneously. In this case, schools could charge separate rates for the same courses to these different classes of students.
2. Institutions could charge different rates for different services to the same class of students. Every course could carry its own price tag. All freshmen, or all lower-division

students, all of the same class, would pay a different rate for each course in which they were enrolled.

3. Colleges and universities could charge different rates for the same services to the same class of students. For example, if the school wanted to maximize the use of its classrooms, it could charge one rate, a higher rate, for peak-time class meetings, and another, lower rate, for off-peak time, such as Saturday morning classes. The different rates would apply to different sections of the same course.

The following kinds of price discrimination are offered for consideration. In order for the plan to be considered, it had to meet the following criteria:

1. that the school has the ability to segment the market;
2. that price elasticity of demand must be below unity;
3. Reasonableness; that is, the proposal could be employed readily, and that the school would not have to make any basic adjustments to institute the desired proposal (s).

There is no implication that these proposals are exhaustive. Colleges and universities may elect to employ them singly, or in pairs, or to develop their own options, which may be more appropriate to their particular situation.

1. Vary tuition by level of student: one rate for the lower level, freshman and sophomores, and a higher rate for upper level students, juniors and seniors. The intent here, is for tuition to bear some relation to costs of instruction per

student, which do vary be level. Such a proposal would vary in the case of a community college. Here, tuition would change for each of the two years, lower for freshman, and higher for seniors. The SUNY system uses this tuition technique.

2. Vary tuition by department: tuition could be lower for those departments generating more credit-hours of enrollment than they consume in the budget and higher for those departments which do not generate sufficient funds to cover their budgets.
3. Vary tuition by level of course and technique of instruction: an introductory lecture course could carry a lower price tag than a senior seminar. Again, the purpose, there, is to have tuition bear some relationship to instructional costs. The level of the course and the amount of time the instructor spends per student affect costs, and this proposal will make tuition reflect these costs.
4. Vary tuition by using a two tier system: the student pays one charge when he is enrolled as an undergraduate and another fee spread out over twenty years, contingent upon the graduate's income. The base rate would be similar to current tuition charges and the contingent repayment plan would be similar to that which is employed by contingent repayment loan schemes. Under the two-tier system, schools might be able to increase the base rate less than under traditional methods and rely upon future income to make up the difference. This technique might make education relatively less expensive for women if they chose not to work after graduation. Income can be projected forward

at the same rate that income for this class of people has grown in the last twenty years.

5. Vary tuition by charging more for part-time students than for full-time students: full-time students really pay more for their education because of foregone earnings; and therefore, part-time students should be expected to pay a higher tuition.

As long as demand for higher education remains inelastic with respect to price, differential tuition pricing may be an effective device for raising additional revenue for colleges and universities. However, it may not be suitable for middle-income parents who may want to send their children to high-priced, high quality schools (Times, April 20, 1978). The Census Bureau defined a moderate standard of living for a family of four as $16,236.00, but indicated that in certain cities, particularly in the northeast, the same family would require $20,609.00 to maintain the same moderate standard. The wealthy, of course, can afford to purchase higher education from current income, while the poor receive scholarships, grants and loans to finance their education. But how can a college professor or school teacher, earning perhaps $18,000 per year, which is incidently, below the moderate standard of living described by the Census Bureau, find the funds to send his children to an institution like Columbia University or the University of Pennsylvania? Unless some suitable financial provision is made, the option is not a viable one for that professor or teacher.

In addition, current government loan schemes have tended to be inefficient because of the onerous debt burden placed upon the students from low and middle-income families. Many have simply defaulted. The

government is currently trying to recoup approximately $430 million in guaranteed loans from student defaulters. In an effort to secure an adequate source of funding at reasonable rates, and to secure repayment, the following financing plans are proposed with the accompanying rationale and criteria.

1. The proposal should provide the student and/or his parents with long-term, low-interest loan funds (e.g., $20,000 at 6 percent interest for 20 years to pay for most, if not all of a college education). The amount available should be realistic so that poor and/or middle income students could attend high-cost, high-prestige colleges and universities.
2. The agency-providing these loan funds must have some real security (e.g., a pledge against real assets) to secure these loans. For example, parents could co-sign the indenture, or, if that option is not possible or practical, the student could pledge future social security benefits and/or tax exemptions as collateral.
3. The third criteria for consideration is that sufficient funds should be provided so that private higher education can remain as a viable option for the middle-class. For example, parents could pay for the college expenses of their children with "E" Bonds and be exempted from taxes on the accumulated interest. Ownership of the bonds could be transferred to the college or university which would receive the full value of the bond, principle and interest. The government subsidy, of course, is the foregone tax on earned

interest. This is an invest-in-America scheme designed to aid higher education.

4. The fourth criteria is that institutions of higher education ought to be obliged to make their operations as efficient as possible, if they wish to share in these "new" funds. For example, the government could limit these loan funds for use only in those institutions in the lowest three quartiles of cost factors. The Office of Education could develop a series of comparative cost devices upon which these decisions could be made (Halstead and Weinberg).
5. Any Federal funding scheme must be realistic. In no way can we expect Congress to make an open ended funding commitment to higher education. In order to make new loans, a student loan bank would require fresh appropriations for each session of Congress. As a non-profit agency, it would not generate sufficient revenue from interest repayments, at least during its initial years of operation, to be able to make meaningful loans to new clients. Congress would therefore, control effectively, this financing agency.
6. Students and their families ought to pay for higher education as they do for other investment or consumption items (e.g., cars or homes). Demand for these items has shown itself to be inelastic with respect to price regardless of income class. What is lacking in higher education is an adequate financing vehicle even if the family or student were willing to undertake the total cost of this education.

I suggest, therefore, that the federal government should finance, directly, long-term, low-interest loans to students and parents. An investment in human capital should be treated in a fashion similar to any other long-lived capital investment (e.g., a home). It is, after all, a societal advantage to have a well educated citizenry. If a certain portion of those citizens decide to avail themselves of private higher education, and undertake to finance it themselves, then the government ought to aid them to the same extent it aids some citizens in other areas of the economy. Examples of two such areas are the federal subsidy for Veteran's Housing and low-interest, long-term Small Business Administration loans.

The federal government could, in effect, subsidize these long-term, low-interest loans based upon the following rationale. In the first place, there is a positive correlation between years of education and income. Therefore, those persons having greater amounts of education would pay higher taxes. Of course, some could ask if financing education is the most efficient way to generate more tax revenue for the federal government or if financing private higher education is the most efficient and least costly way to provide higher education. Secondly, these education loans could carry a lower interest rate because the element of risk has been mitigated to some extent. The loans would be secured against future tax exemptions and social security benefits. Finally, the government should acknowledge what the private sector has already recognized. That is, the terms of the loan should match, on the one hand, the ability of the individual to repay in a specified period of time, and on the other hand, the value of the asset

being purchased. Increasingly, auto loans, which traditionally were made for 36 months, are being written for 48 months. Banks have recognized two facts: (1) automobile cost more than in the past; and (2) people need more time to repay larger loans. Surely, the same situation would apply to higher education loans.

Let's examine what happens if a family decides to borrow to finance the cost of a student's education. Currently, that family could go to a bank and borrow up to $20,000 to be repaid in seven years at an annual percentage rate of 11.40 percent (Dollar Savings Bank). This family would receive up to $5,000 per year and could take up to seven years to repay the loan in monthly installments. Payments would begin one month after the first disbursement by the bank, and total repayment would be $24,772. I feel that the interest rate is too high, and that the repayment period is too short. Again, banks should recognize that the same principles that they apply to automobile loans should be applied to higher education loans.

I propose that the government should finance student educational loans, directly. These loans should be available at 6 percent for 20 years for up to $20,000. The government could make these kinds of loans if it could secure them against real assets -- the student's future tax exemptions or future social security benefits. As long as the tax law remained unchanged, or at least that part concerned with individual exemptions, the government would always have a secured asset in the form of the individual's personal exemptions. The same line of reasoning applies to the pledge of future social security benefits.

In most jobs, the individual pays into the social security fund until retirement. If the student failed to repay his/her loan obligations, he/she would have paid into the fund and would receive no benefits upon retirement.

How does this theoretical government backed loan compare to one that can be secured at a bank? There are two elements that are vital for consideration here. Is the size of the loan meaningful, and are the terms of repayment such that the student and/or his family can repay this loan with some degree of facility? In the first place, the size of the loan $20,000, is meaningful. It would allow the student and/or his family to borrow an amount of money which, when combined with other sources of aid or work, would enable matriculation at even the most expensive colleges and universities if there was an ability to gain admission and a desire to attend. In both cases, the bank or the government would make available to the student identical amounts of money to finance his/her education.

The terms of the loan are the important variable which should be considered here. If the student borrows $20,000 from the bank and elects to repay the loan in seven years, the maximum period allowed, he will repay $24,772 at the rate of $294.90 per month. On the other hand, if this same student were to borrow this money from the federal government, he would repay the loan, $20,000, in twenty years. This loan would cost $34,418 and be repayed at the rate of $143.29 per month. Although the student will be repaying an additional $9,600 if he borrows from the government, the difference is reflected, partially, in borrowing money for an additional thirteen years, the repayment terms are far easier.

Consider, for example, that our hypothetical student might earn between $10-12,000 upon graduation, and that he has borrowed from a commercial bank to finance his college education. Taking a middle figure of $11,000, the federal tax rate would be about twenty-two percent. This means that the student would have about $8600 in disposable income. Let's assume that room and board account for $3,300 per year, and incidentals, including insurance, telephone, utilities, and entertainment cost an additional $1200 per year. If these expenses are deducted from the student's disposable income, he has remaining to him, only $4100, with which he must repay a bank loan of $3539 per year. These conditions leave the student with a reserve for contingencies of $561 per year.

Let's examine what happens if our student were to borrow his money from the government. We will assume the same income and expense figures, except for the terms of the loan. If disposable income were $8600, less $3300 for room and board, less $1200 in incidental expenses, the student will have available to him, $4100 with which he could repay his government loan. This loan would cost him $1700 per year, and leave him $2400 per year as a reserve for contingencies. It appears that this second choice is a more prudent path for the student, even if it means the repayment of substantially more money. (See Table 1)

The question remains, however, what forms of support should the government offer to other students, parents, and institutions of higher education? Government aid could take the form of a tax allowance, a tax deferral, or a tax credit which would be tied to the loans. Of course, we must consider the additional question of whether any form of tax mitigation is equitable. Generally speaking, however, an allowance is

thought to be a claim against gross income, and a tax credit is an amount deducted from an individual's net tax liability. The third idea, the tax defferal concept could allow, for example, the postponement of up to $1500 per year of tax liability to a maximum of $10,000 for ten years. In this case, the tax obligation is merely postponed; it is not reduced or eliminated.

TABLE I

Comparison of Government and Private Loans in Year 1.

	From Commercial Bank	From Federal Government
Face Value of Loan	$20,000.00	$20,000.00
Years to Repay Loan	7	20
Monthly Repayment Charges	294.90	143.29
Total Amount Repayed	24,772.00	34,418.00
Gross Wages	11,000.00	11,000.00
Disposable Income	8,600.00	8,600.00
Room and Board	3,300.00	3,300.00
Incidentals	1,200.00	1,200.00
Yearly Loan Expenses	3,539.00	1,700.00
Reserve for Contingencies	561.00	2,400.00

Let's examine other ideas. Surely, the present governmental approach to individual and corporate income taxes gives some support to the concept of a tax allowance for an individual's education. After all, most corporations are allowed to deduct 50 percent of the cost of corporate training and human resource development activities. The allowance applies, not only to direct educational expenses, such as tuition and fees, but to other areas of expense as well, such as room, board, and travel, if applicable. In addition, professionals (teachers, lawyers and accountants) have, for years, been permitted to deduct the costs of their continuous career education activities. It would appear logical that the same privilege ought to be extended to the individual to help finance his education, and gain entry into these lucrative and rewarding careers.

Such a position on tax policy can be defended on the grounds that federal revenues to be used for the support of higher education are being expended efficiently. If private higher education fails, the various levels of government, but most particularly, the federal and state branches, will be forced to expend significantly larger amounts of money to develop alternate public higher education facilities. In addition, from a societal point of view, the question can be posed, what expenditures of tax revenue will produce the highest tax return for the least investment. The cost, certainly, would be nearly prohibitive if the government had to undertake to reproduce the physical plant and other facilities already in existence, and offered by private higher education. Even if the government decided to buy a bankrupt college or university, assuming that this option is less expensive than the replacement route, the overall

cost to society would be greater than the provision of support funds to maintain private higher education.

What kinds of exemptions could be covered by a tax allowance? Among the several alternatives that may be considered are:

1. exempt the total cost of higher education, including room and board, as is the case with corporate training and the continuous career education enjoyed by the professionals.
2. exempt only the cost of tuition and fees from gross income computations.
3. exempt interest charges on loans in addition to the tax allowance already included in, and provided for, by those persons using the IRS short form.
4. provide an additional $750 tax allowance for those persons financing their education with loans, in addition to the tax allowance already included in the IRS short form.

What are the benefits and drawbacks associated with this plan? Let's examine the benefits first. The tax allowance idea is efficient. It could provide additional funds to finance higher education without the overhead costs normally associated with other financing schemes. It would require only a reworking of the IRS forms. The tax allowance approach would encourage more people to seek loans and to try to finance a greater portion of their higher education themselves. Lastly, a tax allowance, because it is computed from gross income, is less costly for the government than a tax credit, which is deducted from the individual's

net tax liability.

There are, however, some drawbacks to this approach. Because of the progressive nature of our tax laws, more tax exempt dollars would go to wealthy parents than to moderate income or poor parents to finance the education of their children. A tax allowance program may tend to encourage students and/or parents to seek out a more expensive form of education than they could ordinarily afford. Lastly, and this might be the most serious drawback, a program of tax allowances may be inflationary, but, certainly, less so than a program of tax credits.

Let's examine whether a program of tax credits would be a suitable solution to higher education finance. The plan fails to meet the criteria for selection. Although it meets the test of reasonableness, no cost to the student or his parent, societal costs would be immense. However, a program of tax credits would fail to meet the test providing meaningful funds for higher education. (See Table 2 for a schedule of proposed tax credits). Even a superficial glance at the information in Table 2 will indicate that tax credits do not provide meaningful funds to pay for private higher education which can cost between $5-8,000 per year. In addition, this program would cost the treasury immense amounts of money, and provides little real relief.

What are the advantages and drawbacks of a tax deferral to be used to finance higher education? The advantage, of course, is that it may defer up to a maximum of $1500 owed on income taxes per year. Such a proposal would be particularly attractive to upper income families who can,

Table 2.

*Implications of Tax Credits

	Year	Tax Credit
**	1977	$250
	1978	300
	1979	400
	1980	500

* Senate Bill 311 provided for 100 percent compensation for eligible expenses up to these yearly limits. Because family income is not a factor, this bill is considered to be regressive.

** Corwin and Kampper estimate that a $250 tax credit would increase enrollment by 320,085 FTE's (ACE, 1977). This should be contrasted with the findings of Jackson and Weathersby that a $100 increase in the price of higher education produces a 2.5 percent decrease in enrollment. The assumption is that higher education is highly elastic with respect to price.

most easily, pay the high annual cost of private higher education ($5-8,000 per year). A financing technique of this nature would ameliorate, to a considerable extent, the pressures placed upon the family pocketbook by higher education. This hypothetical upper income family could, by deferring the tax obligation, use the $1,500 to purchase non-essentials such as vacations or automobiles. They are aware, certainly, that it would be easier to repay the tax obligation once the son or daughter has completed college. In addition, the IRS currently charges 6 percent on outstanding money, while the annual rate of inflation is about 7-8 percent, and rising. Therefore, the Treasury would be subsidizing this plan by 1-2 percent per year, and allowing plan participants to pay back their tax obligation with discounted dollars.

There are, at least two major drawbacks to this plan. In the first place, a tax deferral plan would seem to aid wealthy families more than those of moderate of low incomes. Nearly 88 percent of those families having children in college have an income of less than $30,000 per year, over 65 percent have an income of less than $20,000, and nearly 30 percent earn less than $10,000 annually. The problem for these families is to raise the estimated $5-8,000 annual cost of private higher education. In some cases, $8,000 could represent 80 percent of a family's income. A deferral of $1,500, it may represent 18-20 percent of the annual cost of college, still leaves a significant amount of money to be paid for college each year. Of course, the deferral plan does little to aid a family that might be fortunate enough to have two, or perhaps three children in college at the same time.

What are the implications to the student and to the government of tying a federally financed long-term loan scheme to a system of tax allowance. Let's make two basic assumptions. In the first place each college graduate who financed his education by loans would be entitled to a special educational exemption of $750 even if he elected to use the IRS short form. The assumption here, is that it is less costly to the government to provide this kind of a subsidy than to support public higher education, or to provide direct grants or scholarships. Second, each student who uses the government loan plan to finance his education should be permitted to deduct the interest charges on this loan even if he uses the IRS short form. These deductions and exemptions would be credited directly to the federal government to supplement repayments on the loan. Since the amortization schedules of most loans call for significant interest payments in the early years of the loan, this would work to the student's advantage. His or her greatest tax savings would come at the very time when his salary is relatively small and when the pressure of the loan would be the greatest. Some examples might be helpful here (See Table 3). In year one, income is assumed to be $11,000 the tax rate 22 percent, and interest on the loan is $1186. Therefore, student would be able to shield $165 of his tax exemption, and $261 from the interest on the loan. Therefore, the total amount of his direct credit to the government in year one would be $426. In year five, income is assumed to be $16,000 the tax rate is 30 percent and interest on the loan is $999. In this case, our student would be able to shield $225 of his tax exemption, and $300 from the

Figure 3.

Effect of Tax Shield on Individual Exemption and Interest Charges

Year	Tax Rate (%) for Single Person	Estimated Gross Wage	Value of Individual Exemption at Income Level ($750 x % Tax Rate)	Yearly Interest	Savings on Interest because of Tax Shield	Direct credit due to government
1	22	$11,000	$165	$1186	$261	$426
5	30	$16,000	$225	$ 999	$300	$525

interest on the loan. The total amount of his direct credit to the government in year five would be $525.

A last proposal we will consider is using "E" Bonds to finance higher education. By supporting this plan, the government would promote savings and higher education at the same time. What are the advantages of this plan? As far as the government is concerned, it is a relatively inexpensive way to raise money in the market. Interest rates on "E" Bonds are 6 percent, and the most recent Treasury Bonds carried an interest charge of 8.65 percent.

In what ways would "E" Bonds prove attractive to parents? I propose that the laws should be amended to permit the parents to buy "E" Bonds, and then transfer ownership to colleges and universities in payment for the education of their sons and daughters. The parent would be able to transfer the principle and accumulated interest to an institution of higher education without any tax obligation. In turn, this same college or university could redeem the bond for full value, interest and principle, without any tax obligation. In effect, the government would be subsidizing this difference.

Precisely, how would this plan work in practice? Assume that a parent wanted to have available the full cost of education for their child when he reached college age. This parent would need to save $51.63 per month for 18 years at 6 percent interest in order to have $20,000 on hand for his child's education. At this rate, $11,152 would represent payments of principle, and the balance, $8,848 would represent accumulated interests. Ordinarily, the long-term capital gains tax on

this investment would be about $3,100 and this would represent the amount of the subsidy over an 18 year period. If, however, the government were paying 8.65 percent on its money, the current rate for Treasury obligations, it would have paid out $15,479 in interest to this parent, if he invested the same $51.63 per month for 18 years. The difference between 6 percent and 8.65 percent interest is $6,631 additional dollars the government would pay to the Bond holder. The capital gains tax on the earlier option would be $3,100. Therefore, it is to the advantage of the government to support the option discussed first.

SUMMARY

A review of the problems associated with higher education finance indicates that no single solution will be suitable for all colleges and all students. It is the contention of this author that a variety of educational financing techniques should be offered and which may be employed individually, or in conjunction with other devices. In this paper we have explored the need to provide more funds to institutions of higher education and to parents and students. At the same time, care must be taken to insure that institutions of higher education become more efficient, so that these new funds will not be dissipated. We have seen that differential tuition pricing is an effective device for generating more funds for the institution, but such a program could succeed only if other sources of funding were provided for the parent and for the student.

These other sources of funding could be long-term, low-interest loans made by the government directly to the student or the "E" Bond device. In either case, the amount of money available for the loan must be meaningful, and the terms must permit ease of repayment. Lastly, these financing schemes must pass the test of political feasibility.

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